



Metals, Mineral Resources & Recycling Division



Masaaki Bito
Managing Executive Officer, COO
Metals, Mineral Resources & Recycling Division
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Recycling Division

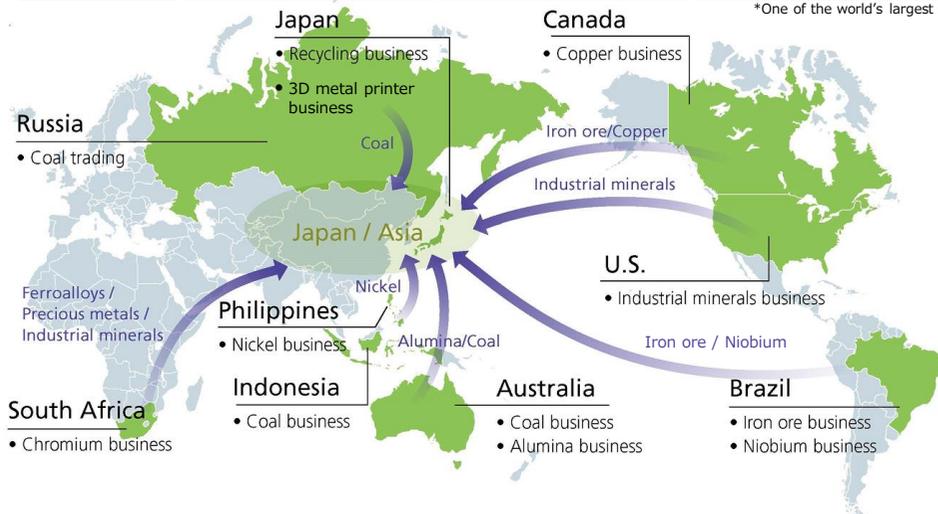
- Joined Sojitz predecessor in 1988
Born in Shizuoka Prefecture, Japan
- Graduated from the Faculty of Economics, Tohoku University
- Career History
 - Coal Dept. (1988-2007)
 - Stationed in Sydney, Australia (1994 - 1997)
 - CoalinQ Corporation Director President (2003 - 2005)
 - Planning & Administration Office (2007 - 2009)
 - Corporate Planning Dept. (2009 - 2010)
 - General Manager, Coal Dept.,
General Manager, Coal & Mineral Resources Development
Dept. (2010 - 2016)
 - COO (2016 - present)
 - Managing Executive Officer (2020 - present)



Overview of Division

Current Division Strengths	Sole general trading company with expertise in coal mine operations	Stable earnings from businesses such as those of Metal One*	Network of major steel, power, and cement companies in Japan and Asia	Ability to offer rare resources and develop new materials
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*One of the world's largest steel-based general trading companies



FY2021 H1 at a glance

Profit for the year* ¥16.2bn
Total Assets ¥506.2bn

Number of employees 266 (non-consolidated)
Number of employees 22 (overseas)

*attributable to owners of the Company

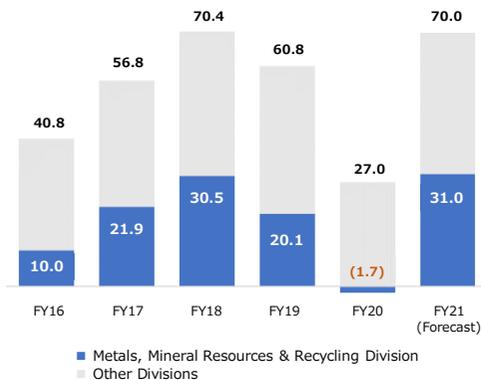
- The Metals, Mineral Resources & Recycling Division is working to generate earnings through the three pillars comprised of the trading functions Sojitz boasts as a trading company, upstream resource interests, and steel product operations, such as those of Metal One Corporation.
- Characteristics of the division include how we are directly operating the Gregory Crinum coal mine, our rising trading volumes for ferroalloys and rare metals, and the stable earnings produced by Metal One.
- Total assets for the Metals, Mineral Resources & Recycling Division come to ¥506.2 billion, the largest of any of Sojitz's divisions. As such, there is a high level of anticipation directed toward the earnings of the division.

Positioning of Division

[Summary of Profit for the year*]

*attributable to owners of the Company

(BN JPY)



Massive scale of earnings within Sojitz despite fluctuations in commodity prices

Division earnings serving as source of Companywide investment funds

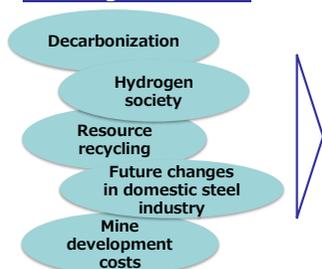
Central division responsible for expanding "circular economy-related businesses"

- This slide shows trends in profit for the year.
- The Metals, Mineral Resources & Recycling Division accounts for a particularly large portion of Sojitz's consolidated earnings. In fact, the average for profit for the year over past years is about ¥20.0 billion.
- During the period of the medium-term management plan, we will use the figure of ¥20.0 billion as our base level for profit for the year, and we will seek to capitalize on any significant improvements in market conditions to generate earnings in excess of this figure.
- However, we cannot deny that the division operates in highly volatile fields that are susceptible to market fluctuations. Accordingly, it will be imperative for us to maintain a significant scale of operations and to work to stabilize earnings.
- At the same time, we look to produce consistent earnings through the new businesses we will be talking about today in order to grow them into earnings pillars that can stand alongside our trading businesses, upstream resource interests, and the steel products business of Metal One.

Basic Policies

- Creation of businesses emphasizing current Medium-Term Management Plan and periods after the plan and after 2030 based on **megatrends** affecting division
- Swift **transformation of division business portfolio** by concentrating resources on **3 focus areas**
- Exercise of unique Sojitz strengths emphasizing **competitiveness** in all businesses

Megatrends



3 Focus Areas

Upstream Interests	Creation of substantial earnings through investment in competitive upstream interests and development of new businesses centered on said earnings; improvement of quality of asset portfolio prefaced on asset replacement
Circular Economy Businesses	Development of substantive comprehensive recycling business positioning trends toward circular economy and resource conservation as business opportunities; growth of recycling business into 3rd pillar alongside upstream coal interests and steel products
Businesses That Respond to Social Needs	Provision of technologies, materials, and solutions for addressing industry issues and obstacles in areas projected to see changes in social needs related to supply chain reinforcement, new materials, decarbonization, electrification, and electricity storage

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*Medium-Term Management Plan 2023

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- In determining the basic policies and focus areas of the medium-term management, we engaged in a series of ongoing discussions that stretch back to 2019.
- The greatest challenge faced by the Metals, Mineral Resources & Recycling Division over the past four or five years is trend toward decarbonization. Beginning with the adoption of the Paris Agreement, the operating environment pertaining to thermal coal has undergone substantial changes of a speed and scale that surpassed all expectations.
- We responded by putting forth a policy of cutting back on thermal coal assets in 2019, and we have announced a plan of eliminating all thermal coal interests by 2030. In addition, we intend to reduce coking coal interests to zero by 2050 in light of the trends seen in the steel market.
- Five years ago, we had five thermal coal interests, but today that number stands at two. We are making smooth progress in replacing thermal coal assets, and the ratio of thermal coal interests to coking coal interest currently stands at three to seven.
- Megatrends related to the development of circular economies include the projected rise in costs that will be seen after quality resources are depleted, an inevitability given that resources are finite. At the same time, there is a large amount of social concern given the environmental issues associated with resource development. These trends mean that the promotion of resource recycling is inescapable.
- Meanwhile, supply chain issues have been a recent target of attention. In this area, we have seen supply chain issues related to overconcentration in China, creating a serious need to develop new materials.
- Based on these factors, we have defined three focus areas in Medium-Term Management Plan 2023: upstream interests, circular economy businesses, and businesses that respond to social needs.

Policies

- Careful selection of competitive upstream interests (coking coal, rare metals, etc.) while demonstrating Sojitz's essence
- Creation of new businesses that combine Sojitz functions based on interest investments
- Generation of cash flows through asset replacement and improvement of profitability

- Coking coal interests
 - × Contract mine rehabilitation and operation



Direct involvement in coal mine management and operation through 100% stake in upstream interests at Gregory Crinum coal mine in Australia; commercialization of mine rehabilitation and operation expertise and application at other mines

- Niobium interests
 - × Next-generation lithium-ion batteries development



Acquisition of upstream niobium interests through CBMM of Brazil in 2011; joint development of next-generation lithium batteries using niobium as anode materials together with Toshiba and CBMM

- In regard to upstream interests, the utilization and reinforcement of exiting assets is a given. There are two existing areas of mining in which we will focusing our efforts and strengthening operations going forward.

Gregory Crinum Coal Mine and Other Coking Coal Businesses

- Pit mining is scheduled to begin at the Gregory Crinum coal mine in 2022.
- We are currently facing issues in the form of heavy rains in Australia. These rains may impact open-air mining operations, but pit mining operations will be unaffected. Accordingly, we plan to engage in both pit mining and open-air mining operations in order to minimize weather risks.

Niobium Mining in Brazil

- Steel production was down around the world in 2020 as a result of the COVID-19 pandemic, and sales volumes have fallen as a result. Nevertheless, we expect increased demand as steel products becoming more high-end in the future.
- Sojitz's ferro-niobium production volumes currently stand at around 80,000 tons per year, but we intend to increase this to between 90,000 and 100,000 tons per year going forward. We currently have a production capacity of 150,000 tons per year.

New Businesses that Combine Sojitz Functions

- New upstream resource businesses will be developed in areas where Sojitz boasts strength and the potential to differentiate its operations. Based on this policy, we will refrain from engaging in projects that have a significant scale or entail a substantial investment in fields where it is difficult for Sojitz to exercise its strengths, like copper and iron ore.
- The functions used for operating the Gregory Crinum coal mine will be utilized to develop mines in the surrounding areas. We will also provide these functions to nearby mine operators should they request such support. Through these efforts, we will pursue stable earnings.
- At the same time, we aim to develop new applications for niobium, as we are doing at Companhia Brasileira de Metalurgia e Mineração. Niobium has previously been used as a steel additive, but we have since seen increased demand for this resource for optical applications. It is also being used as an additive in anode materials for battery development. The Metals, Mineral Resources & Recycling Division is moving beyond upstream interests to pursue new possibilities for value-added businesses. For example, we are taking part in fields pertaining to rare auxiliary material expected to see strong demand, such as silicon and mineral sands, and we look to invest in businesses that will be viable in these fields in the future.

Policies

- Establishment of Resource Recycling Business Dept. with 25-member staff; expansion of staff in conjunction with business growth
 - Concentration of resources on **3 high-potential target areas** in circular economy field to quickly develop projects
 - **Multiple, large-scale M&A activities** to be executed during Medium-Term Management Plan period
- ★ Analysis of projects from perspectives of profitability, growth potential, and barrier to entry and **incorporation of fields in which Sojitz can exercise autonomy**

3 target areas	Business Strategies
 <p>IT equipment</p>	<ul style="list-style-type: none"> ● One-stop service for IT asset data erasure, collection, reuse, and recycling and security systems ● Expansion of business through large-scale investments <p>Results Acquisition of stake in TES-AMM Japan K.K., an IT asset disposition service provider</p>
 <p>Organic plastic</p>	<ul style="list-style-type: none"> ● Development of comprehensive recycling business through acquisition of new recycling technologies ● Examination of possible investments in chemical recycling and waste treatment companies <p>Results Acquisition of stake in PET Refine Technology, Co., Ltd., a PET bottle chemical recycling business company, as well as Recotech Co., Ltd., with the aim of developing a circular renewable resource platform</p>
 <p>Lithium-ion batteries</p>	<ul style="list-style-type: none"> ● Development of battery sales and peripheral service businesses (technical centers, lifespan diagnoses, etc.) ● Creation of used lithium-ion battery collection, reuse, and recycling businesses

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- Circular economy businesses is a field where Sojitz will face significant challenges. Regardless, we decided to enter into this field given that there is no avoiding the need to respond to social changes.
- In the broad-ranging area of recycling, it took us a lot of time to identify target areas, but we eventually decided to define the three target areas of IT equipment, organic plastic, and lithium-ion batteries.
- We will first begin implementing initiatives in the IT equipment area before later entering into the organic plastic area and finally the lithium-ion battery area.
- The Metals, Mineral Resources & Recycling Division is taking a long-term approach toward lithium-ion batteries as the popularization of electric vehicles, a major application for lithium-ion batteries, still requires time.

IT Equipment

- Computers, servers, and other IT equipment are being increasingly used in schools and companies, and it is highly unlikely that the use of these items will decrease in the future.
- Recycling will not be our only focus with this regard. We will also turn our attention to the additional value that can be provided in light of the extreme importance of information security management.
- In January 2021, Sojitz acquired a stake in TES-AMM JAPAN K.K., the Japanese branch of the Singapore-based TES Group, one of the largest global IT asset disposition service providers. The first step in our relationship with TES-AMM JAPAN will be to dispatch personnel to this company to accumulate know-how, after which we will move on to the next step.

Organic Plastic

- Simple disposal and thermal recycling of plastic bottles and other waste plastics is difficult, and there is limited space for landfills.
- Our success in this field, with its high barrier to entry, will hinge on our ability to partner with or acquire existing business operators. After forming such relationships, we will look to apply new domestic and overseas technologies to recycling initiatives. We also hope to energize our operations in this field by taking part in initiatives for recycling waste through means such as converting collected waste to hydrogen and plastic. We thereby aim to generate profits.
- In 2021, we invested in PET REFINE TECHNOLOGY, Co., Ltd., a plastic bottle and chemical recycling company. Operations at and shipments from this company have already commenced.
- We have successfully built a strong portfolio of standalone projects through these investments. The next step will be examining possible approaches for generating synergies between these projects.

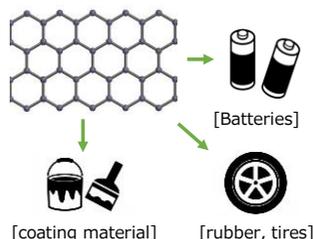
Lithium-Ion Batteries

- A key focus for the next five to seven years will be the extent to which we can introduce battery as a service solutions.
- Sojitz has commenced investment in electric vehicle company ASF Co., Ltd. Accordingly, we must now seek out ways to generate synergies by utilizing our joint battery development activities with TOSHIBA CORPORATION. As our first step, we are currently negotiating with overseas storage battery manufacturers to develop the sales channels necessary for selling storage batteries in the Japanese market. It might take some time to develop our operations in this area, but we see a lot of promise here.

Policies

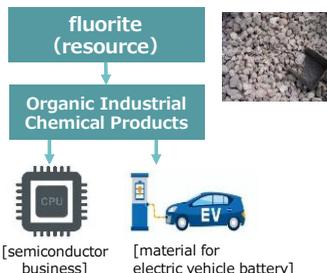
- Reinforcement of projects that address priority issues with an eye to generating profits after the current Medium-Term Management Plan period
- Creation of projects in areas with high social needs related to supply chain reinforcement, new materials, decarbonization, electrification, and electricity storage

■ **Graphene production business**



Investment in Singapore-based graphene manufacturer 2DM; development of applications for graphene, which is expected to contribute to substantial improvements in battery performance, while creating Sojitz-led manufacturing and sales systems

■ **Fluorine compounds business**



Participation in value-added intermediate product businesses alongside traditional material (fluorite) trading

■ **3D metal printer business**



First Japanese company to develop production system encompassing metal powder manufacturing and metal laminating; development of service bureau that provides traditional contract manufacturing services as well as metal 3D printer usage solutions for customers

- Lastly, our efforts to develop businesses that respond to social needs will entail a look at supply chain issues. Global supply chains are currently overly dependent on countries like China. In addition to this issue, we also see a need to use Sojitz’s network to find promising new materials and technologies that we can fostered.
- We will begin our efforts targeting focus areas with upstream interests and then move on to circular economy businesses. It will take a little longer for our businesses that respond to social needs to get off the ground.

Three Businesses That Respond to Social Needs

● **Graphene Production Business**

In the graphene production business, we are utilizing graphene developed at a start-up company established by a Singapore university. Graphene has a variety of applications. In addition, we have a subsidiary called Sojitz JECT Corporation that deals in other carbon-related materials. We will therefore aim to introduce the customers of Sojitz JECT to graphene and encourage them to adopt this material.

● **Fluorine Compounds Business**

Sojitz has a long history in supplying fluorine harvested in Mexico as a raw material for use in chemical and steel applications. In this area, we are investigating various options for addressing supply chain issues through downstream initiatives together with relevant parties.

● **3D Metal Printer Business**

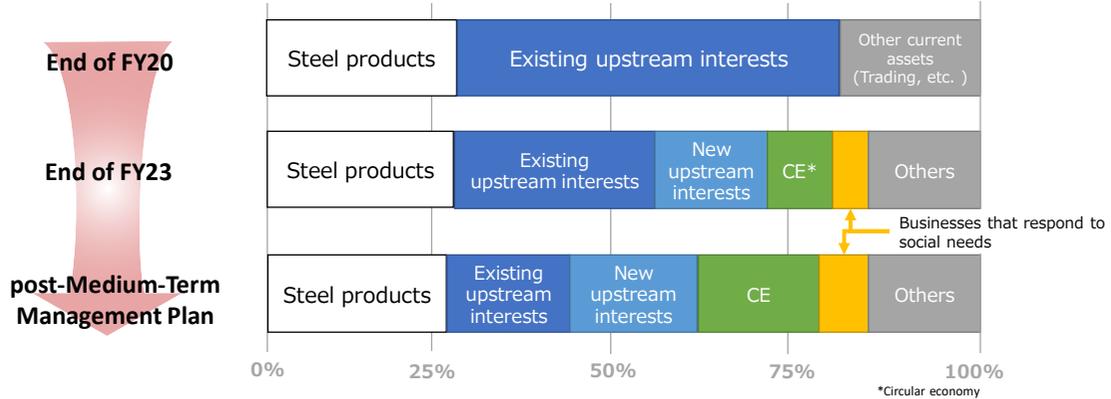
We launched our 3D metal printer business three years ago, and we remain persist in this business, adopting new technologies and undertaking new endeavors. In 2020, this business struggled as the COVID-19 pandemic impeded our ability to devote funds toward development. In Europe and the United States, we have received consultations from major automobile manufacturers and aircraft-related business operators seeking to make up for lost time, and orders have shown substantial growth. The 3D metal printer business may currently be in a difficult position, but we are dedicated to spending the time necessary cultivate this business.

Growth Strategies - Business Portfolio

Transformation of division business portfolio

- Replacement of **upstream interests and substantive investments and loans in focus areas** while maintaining total asset scale to reform portfolio
- Development of businesses in focus areas into earnings pillars for post-Medium-Term Management Plan period

[Images of transformation of division business portfolio]



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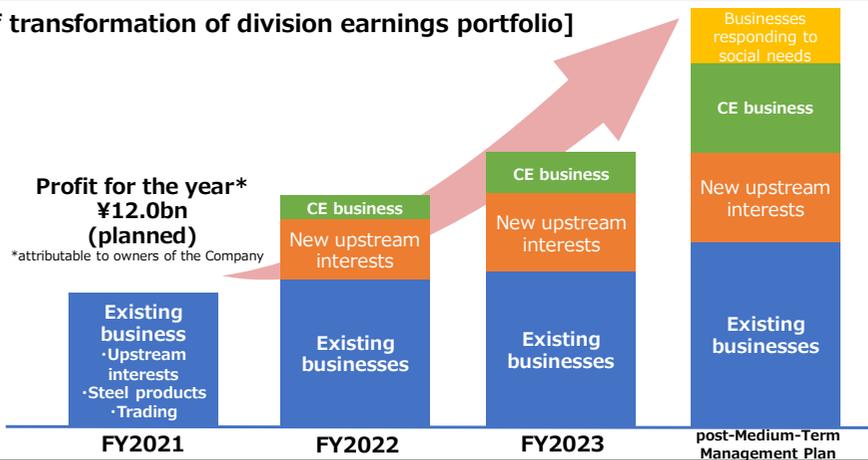
- Our asset portfolio contains total assets amounting to ¥450.0 billion, comprised of ¥150.0 billion in steel product assets, ¥200.0 billion in upstream interests, and ¥100.0 billion in trade and other assets.
- We look to grow circular economy businesses and businesses that respond to social needs to represent between 25% and 30% of total assets in preparation for the period after the conclusion of Medium-Term Management Plan 2023.

Growth Strategies - Earnings Portfolio

Transformation of division earnings portfolio

- Streamlining and competitiveness improvement in existing businesses
(Reduction of upstream interest costs, digital transformation in steel business, etc.)
- Upstream resource asset replacement for boosting profitability
- Steady development of circular economy-related businesses and transference of resources to businesses that respond to social needs in preparation for post-Medium-Term Management Plan period

[Images of transformation of division earnings portfolio]

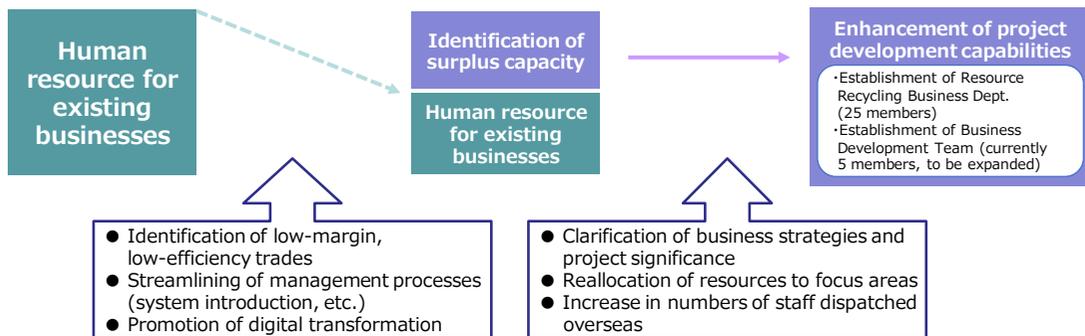


- The Metals, Mineral Resources & Recycling Division is seeking to drive earnings growth through the transformation of its asset portfolio. However, we cannot deny that we are currently facing difficulties in existing businesses, and we have thus put forth performance targets that represent a level of earnings that we absolutely must achieve.
- We have also created a new recycling business organization with a staff of between 25 and 30 individuals. This organization is tasked with facilitating efforts to grow earnings from circular economy businesses and new upstream interests in pursuit of these targets leading up to the year ending March 31, 2024, the final year of Medium-Term Management Plan 2023.

Growth Strategies - HR Portfolio

Transformation of HR portfolio

- Reallocation of resources and human resource development promoted by streamlining existing businesses
- Clarification of responsibility for new business development by separating new business organizations from existing organizations
- Transformation of business portfolio through bold shift of human resources toward focus areas



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- In regard to human resources, around three years ago, we established a new taskforce within the Metals, Mineral Resources & Recycling Division for the purpose of advancing circular economy businesses, businesses that respond to social needs, and other new businesses.
- In the past, we had employees devote around 25% to 30% of their time each week to such new businesses while also taking part in prior business activities. However, it became clear that there was a need for dedicated action by employees assigned exclusively to these businesses. Accordingly, we established the Resource Recycling Business Department with a staff of between 25 and 30 people in April 2021, and then set up the new Business Development Team. Individuals assigned to these organizations will be able to focus their efforts on hydrogen, carbon recycling, and other businesses over the rather long time span of 10 years.
- We understand the need to capitalize on the strengths of new employees. However, we first believe it is necessary to improve efficiency by reorganizing existing businesses and adopting digital tools, especially with regard to trading operations. The efficiency improvements achieved through these efforts should allow us to allocate resources to new businesses.
- We are currently tackling the challenge of developing new businesses, and we hope to foster a culture within the Metals, Mineral Resources & Recycling Division that recognizes our mission as creating things that are new.
- However, we also realize that circular economy businesses are not something we can create by ourselves, but rather an area that will require Companywide attention. We are therefore promoting active exchanges of information with other divisions.



Caution regarding Forward-looking Statements

This document contains forward-looking statements based on information available to the company at the time of disclosure and certain assumptions that management believes to be reasonable. Sojitz makes no assurances as to the actual results and/or other outcomes, which may differ substantially from those expressed or implied by such forward-looking statements due to various factors including the timing at which the COVID-19 pandemic ends, changes in economic conditions in key markets, both in and outside of Japan, and exchange rate movements. The company will provide timely disclosure of any material changes, events, or other relevant issues.